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**PATENT APPLICATION**

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE HONORABLE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Application of

Takehiro KATA et al.

Group Art Unit: 1722

Application No.: 09/431,154

Examiner: J. Mackey

Filed: November 1, 1999

Docket No.: 104639

For: VULCANIZING MOLD FOR PNEUMATIC TIRES

**REPLY BRIEF**

Commissioner for Patents  
P.O. Box 1450  
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Sir:

The following comments are directed to the points of arguments and comments raised in the Examiner's Answer mailed on July 23, 2004.

**I. Response to Arguments**

At section (11) of the Examiner's Answer, entitled "Response to Argument", the Examiner's Answer reiterates the position that Miyata discloses a single cam ring (actuator 4). Specifically, the Examiner's Answer states, "Miyata et al. further disclose that this single member is divided into upper and lower portions 4a, 4b which are provided with means for releasably connecting the portions together during mold closing when the connected cam ring portions (forming a single, unitary cam ring) simultaneously move the upper and lower tread mold segments radially inward (see, e.g., Miyata et al. at col. 3, lines 45-57). The Examiner's Answer contends that the connected cam ring portions are considered to be a "single" cam

ring as recited in the rejected claims when giving the term "single" its broadest reasonable interpretation. The Examiner's Answer further notes that the specification does not define the term "single", and only uses the term twice, at page 3, line 15, and page 6, line 4.

Appellants contend that the two piece actuator 4 having separate upper and lower portions 4a and 4b disclosed in Miyata clearly shows a two piece cam ring. For example, Fig. 1 of Miyata shows the actuator 4 having an upper actuator 4a bolted to the upper platen 6a by bolts 10 (see col. 6, lines 3-12 of Miyata). The lower actuator portion 4b is a separate piece from the upper actuator 4a and is always pushed upward by spring members 29, such as coiled springs attached to the lower mold member 2 (see col. 6, line 66-col. 7, line 2). Accordingly, the upper actuator 4a and lower actuator 4b are not a single cam ring as alleged.

The Examiner's Answer further contends that the upper and lower actuator 4a and 4b are considered to be a "single" cam ring, giving the term "single" its broadest reasonable interpretation. Applicant asserts that as clearly stated in §2111 of the MPEP "during patent examination, the pending claims must be given their broadest reasonable interpretation consistent with the specification". Thus, as a single cam ring is clearly shown in Figs. 2-5 of the specification and described at page 3, line 15, page 6, line 4, and the Abstract of the invention, when interpreted in light of the specification, "single" means one piece. Additionally, the cam ring 13 is described throughout the specification with reference to the figures.

Furthermore, even if the meaning of a "single" cam ring were not sufficiently defined in the specification as alleged in the Office Action, MPEP §2111.01 requires that during examination, the claims must be interpreted as broadly as their terms reasonably allow. This means that the words of the claim must be given their plain meaning unless Applicants have provided a clear definition in the specification. (*In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)). Therefore, if the specification does not provide a sufficiently clear definition, as alleged in the Examiner's Answer, the plain meaning of the term

must be applied. The American Heritage College Dictionary, 3d Edition, defines the term "single" as: 1. Not accompanied by another or others; solitary. 2.a. Consisting of one part, aspect or section. b. Having the same application for all; uniform. c. Consisting of one in number. 3. Not divided; unbroken. Thus, whether interpreting the claims in light of the specification or giving the terms their plain meaning, the two piece actuator disclosed in Miyata does not correspond to a single cam ring as recited in the rejected claims. Accordingly, Miyata does not overcome the admitted deficiency of GB Patent No. 1,248,891 (hereinafter "GB1,248,891") as admitted in the Final Rejection of the claims. Specifically, Miyata does not disclose a single cam ring in direct engagement with upper and lower mold tread members ... to thereby simultaneously displace all of the upper and lower segments radially inward while the single cam ring remains in direct engagement with the upper and lower tread mold members.

The Examiner's Answer also refutes Appellants' argument that Miyata teaches directly away from the use of a single cam ring by requiring a two piece actuator to address the problem due to equatorial shift of the entire center line. Rather, the Examiner's Answer contends that Miyata does not disclose that the divided cam rings solve such a problem, but rather describes that the divided upper and lower sector portions address the problem of the prior art apparatus shown in Figs. 24 and 25 which utilize a tread mold member c which is not divided into upper and lower portions.

Appellants submit that although Miyata does divide the sector c into upper and lower tread mold portions, the object of Miyata is specifically stated as providing "a vulcanizing segmental mold which is compacted for use with a sector which is separated from each of the upper and lower mold members at a position set as desired without being limited by the sliding distance of the sector, the mold being adapted to vulcanize a tire without permitting the tire equator to be off the center of the mold so as to assure the tire of uniformity." Miyata goes on to specifically state that to fulfill the object, the present invention provides a vulcanizing mold

comprising upper and lower mold members, a sector and an upper actuator portion and a lower actuator portion which are movable upward and downward relative to the sector. Thus, Miyata specifically recites that the structure of the actuator is provided to address the problem of the prior art.

Because Miyata specifically discloses the use of an upper actuator and lower actuator to overcome the problem and the prior art as shown in Figs. 24 and 25 of Miyata, there is no suggestion or motivation in the reference to use a single cam ring. Furthermore, GB 1,248,891 specifically recites that despite the division of segments, it is sufficient to have one actuating mechanism which is attached to one mold since the complementary parts of the segments can be coupled with one another to affect radial movements thereof (see page 2, lines 44-50). Thus, there is no suggestion in GB1,248,891 to use more than one actuating mechanism as disclosed in Miyata. Thus, one skilled in the art would not be motivated to combine the references as proposed in the Final Rejection of the claims.

**II. Conclusion**

It is respectfully submitted that the remaining points of arguments set forth in the Examiner's Answer were fully addressed in the Appellants' Appeal Brief. For at least the reasons set forth herein, and in the Appeal Brief, it is respectfully submitted that claims 1, 2 and 4-6 are in condition for allowance.

Respectfully submitted,



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